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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/779,418

02/12/2004

Henrik Bisgard-Frantzen

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05/05/2006

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NEW YORK, NY 10110

EXAMINER

PROUTY, REBECCA E

ART UNIT

PAPER NUMBER

1652

DATE MAILED: 05/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/779,418	<b>Applicant(s)</b> BISGARD-FRANTZEN ET AL.	
	<b>Examiner</b> Rebecca E. Prouty	<b>Art Unit</b> 1652	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 118-193 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 118-193 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

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Claims 1-117 have been canceled. Claims 118-193 are at issue and are present for examination.

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 118-179, drawn to nucleic acids, vectors and host cells encoding an alpha amylase modified by having a deletion of the residues equivalent to positions 179 and 180 of SEQ ID NO:3 and methods of producing said alpha amylase, classified in class 435, subclass 202.
- II. Claims 180-184, and 191-193, drawn to methods of making ethanol using an alpha amylase modified by having a deletion of the residues equivalent to positions 180 and 181 of SEQ ID NOS:1, 2, or 7 (or positions 178 and 179 of SEQ ID NO:3), classified in class 435, subclass 161.
- III. Claims 180-184, and 191-193, drawn to methods of making ethanol using an alpha amylase modified by having a deletion of the residues equivalent to positions 180 and 182 of SEQ ID NOS:1, 2, or 7 (or positions 178 and 180 of SEQ ID NO:3), classified in class 435, subclass 161.

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- IV. Claims 180-184, and 191-193, drawn to methods of making ethanol using an alpha amylase modified by having a deletion of the residues equivalent to positions 180 and 183 of SEQ ID NOS:1, 2, or 7 (or positions 178 and 181 of SEQ ID NO:3), classified in class 435, subclass 161.
- V. Claims 180-184, and 191-193, drawn to methods of making ethanol using an alpha amylase modified by having a deletion of the residues equivalent to positions 180 and 184 of SEQ ID NOS:1, 2, or 7 (or positions 178 and 182 of SEQ ID NO:3), classified in class 435, subclass 161.
- VI. Claims 180-184, and 191-193, drawn to methods of making ethanol using an alpha amylase modified by having a deletion of the residues equivalent to positions 180 and 185 of SEQ ID NOS:1, 2, or 7 (or positions 178 and 183 of SEQ ID NO:3), classified in class 435, subclass 161.
- VII. Claims 180-185, and 191-193, drawn to methods of making ethanol using an alpha amylase modified by having a deletion of the residues equivalent to positions 181 and 182 of SEQ ID NOS:1, 2, or 7 (or

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positions 179 and 180 of SEQ ID NO:3), classified in class 435, subclass 161.

VIII. Claims 180-184, 187, and 191-193, drawn to methods of making ethanol using an alpha amylase modified by having a deletion of the residues equivalent to positions 181 and 183 of SEQ ID NOS:1, 2, or 7 (or positions 179 and 181 of SEQ ID NO:3), classified in class 435, subclass 161.

IX. Claims 180-184, 190, and 191-193, drawn to methods of making ethanol using an alpha amylase modified by having a deletion of the residues equivalent to positions 181 and 184 of SEQ ID NOS:1, 2, or 7 (or positions 179 and 182 of SEQ ID NO:3), classified in class 435, subclass 161.

X. Claims 180-184, and 191-193, drawn to methods of making ethanol using an alpha amylase modified by having a deletion of the residues equivalent to positions 181 and 185 of SEQ ID NOS:1, 2, or 7 (or positions 179 and 183 of SEQ ID NO:3), classified in class 435, subclass 161.

XI. Claims 180-184, and 191-193, drawn to methods of making ethanol using an alpha amylase modified by having a deletion of the residues equivalent to

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positions 182 and 183 of SEQ ID NOS:1, 2, or 7 (or positions 180 and 181 of SEQ ID NO:3), classified in class 435, subclass 161.

XII. Claims 180-184, 188, and 191-193, drawn to methods of making ethanol using an alpha amylase modified by having a deletion of the residues equivalent to positions 182 and 184 of SEQ ID NOS:1, 2, or 7 (or positions 180 and 182 of SEQ ID NO:3), classified in class 435, subclass 161.

XIII. Claims 180-184, 189, and 191-193, drawn to methods of making ethanol using an alpha amylase modified by having a deletion of the residues equivalent to positions 182 and 185 of SEQ ID NOS:1, 2, or 7 (or positions 180 and 183 of SEQ ID NO:3), classified in class 435, subclass 161.

XIV. Claims 180-184, 186, and 191-193, drawn to methods of making ethanol using an alpha amylase modified by having a deletion of the residues equivalent to positions 183 and 184 of SEQ ID NOS:1, 2, or 7 (or positions 181 and 182 of SEQ ID NO:3), classified in class 435, subclass 161.

XV. Claims 180-184, and 191-193, drawn to methods of making ethanol using an alpha amylase modified by

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having a deletion of the residues equivalent to positions 183 and 185 of SEQ ID NOS:1, 2, or 7 (or positions 181 and 183 of SEQ ID NO:3), classified in class 435, subclass 161.

XVI. Claims 180-184, and 191-193, drawn to methods of making ethanol using an alpha amylase modified by having a deletion of the residues equivalent to positions 184 and 185 of SEQ ID NOS:1, 2, or 7 (or positions 182 and 183 of SEQ ID NO:3), classified in class 435, subclass 161.

The inventions are distinct, each from the other because of the following reasons:

The nucleic acids of Group I are unrelated to the methods of Groups II-XVI as they are neither made nor used by the methods of Groups II-XVI.

The methods of Groups II-XVI are distinct as each method utilizes a structurally different polypeptide with distinct properties which may effect ethanol production differently.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter as shown by their different classification, restriction for examination purposes as indicated is proper.

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Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim



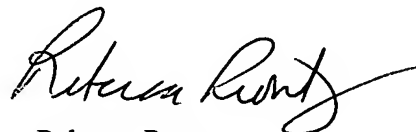
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remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rebecca E. Prouty whose telephone number is 571-272-0937. The examiner can normally be reached on Tuesday-Friday from 8 AM to 5 PM. The examiner can also be reached on alternate Mondays

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura Achutamurthy, can be reached at (571) 272-0928. The fax phone number for this Group is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Rebecca Prouty  
Primary Examiner  
Art Unit 1652